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TC 251 Attorney Docket No. 040447-0218

In re patent application of:

Kyoichi NARIAI

Group Art Unit: 2834

Serial No.: 09/576,492

Examiner: K. B. Addison

Filed: May 23, 2000

For: PIEZOELECTRIC ELEMENT DRIVING CIRCUIT AND DRIVING METHOD

CERTIFICATE OF MAILING

Assistant Commissioner for Patents
Washington, D.C. 20231

Assistant Commissioner:

I hereby certify that the following paper(s) and/or fee along with any attachments referred to or identified as being attached or enclosed are being deposited with the United States Postal Service as First Class Mail under 37 C.F.R. § 1.8(a) on the date of deposit shown below with sufficient postage and in an envelope addressed to the Assistant Commissioner for Patents, Washington D.C. 20231.

1. Amendment and Request for Reconsideration under 37 C.F.R. § 1.111
2. Marked-up Version Filed with Amendment in Response to Office Action of December 19, 2000
3. 3. Postcard

Respectfully submitted,

March 19, 2001

Date

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

MAR 30 2001

Attorney Docket No. 040447-0218

TC 2300 MAIL ROOM

In re patent application of

Kyoichi NARIAI

Group Art Unit: 2834

Serial No. 09/576,492

Examiner: Karen B. Addison

Filed: May 23, 2000

For: PIEZOELECTRIC ELEMENT DRIVING CIRCUIT AND DRIVING METHOD

AMENDMENT AND REQUEST FOR RECONSIDERATION
UNDER 37 C.F.R. § 1.111

Assistant Commissioner for Patents
Washington, D.C. 20231

Assistant Commissioner:

This is an amendment in serial number 09/576492 in reply to the Office Action mailed December 19, 2000. Please amend the above identified application as follows:

IN THE SPECIFICATION:

On page 1, delete the 3rd full paragraph, and replace this paragraph with the following:

b1
The heads of the piezoelectric element driving type ink jet printers use electro-strictness of which mechanical distortion takes place with a crystal such as Rochelle salt or barium titanium in an electric field using piezoelectric effect wherein the dielectric value of a crystal varies as a function of an electric charge on the surface thereof corresponding to an applied mechanical distortion. Using the characteristic that a piezoelectric element is deformed with a voltage, ink droplets are sprayed from nozzles of heads. Since the slope of the voltage and the potential are proportional to the acceleration and the intensity of the deformation of the piezoelectric element, by controlling them, the velocity and diameter of the ink droplets can be varied. Thus, to accurately control the acceleration and size of sprayed ink droplets, it is necessary to properly apply a voltage to the piezoelectric element.

On page 2, delete the 3rd full paragraph, and replace with the following: